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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,143	09/10/2001	Haruhiko Hirosue	P100158-00043	9383

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EXAMINER

KRUER, KEVIN R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 03/17/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/926,143

Applicant(s)

HIROSUE ET AL.

Examiner

Kevin R Kruer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "open type polyimide" is indefinite. Specifically, it is neither defined in the specification or in the prior art in such a way that one of ordinary skill in the art would understand the metes and bounds of the term.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP0392674 (herein referred to as Anthony) in view of Sado et al (US 4,971,748). Anthony teaches a process and apparatus for the production of a shaped polyimide sheet. The process includes the steps of supplying a polyimide sheet from a roll (col 2, line 53+), placing the sheet on a shaped surface of a die, sealing the sheet edges to the die, applying a vacuum between the die surface and the sheet to draw the sheet into contact with the shaped surface to impart the required shape to the sheet, placing the

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die and sheet in a gas containing autoclave whilst maintaining said vacuum, raising the temperature and pressure in the autoclave, and reducing the temperature and pressure in the autoclave to ambient pressure (abstract). A vacuum pump is attached to the die assembly and the air is extracted from between the sheet and the die (col 3, lines 10+). The vacuum is accomplished by a number of perforations on the die that allows the air between the overlying sheet and the die to be removed(col 4, lines 44+). At the same time, the internal air pressure of the autoclave is raised at a pre-determined rate to the desired elevated pressure (col 3, lines 27+). Thus, a pressure difference is provided relative to the polyimide. The temperature is raised by heating the gas in the autoclave to the desired temperature (col 3, lines 20+). Said method reads on the claimed "contactless heating" because Applicant teaches that "contactless heating" includes heating the air around the polyimide (see page 10 of specification)." The temperature is then allowed to fall at a predetermined rate to the desired lower value (col 3, lines 36+). Said method results in the polyimide sheet taking the shape of the die (col 3, lines 34+). The shaped polyimide is then removed by any suitable way (col 3, lines 52+).

Herein, the roll taught by Anthony is understood to read on the claimed "supply mechanism." Furthermore, the teaching of sealing the sheet edges to the die is relied upon to teach the claimed "so as to tightly close the open end thereof." The elevation of pressure in the autoclave is understood to read on the claimed "pressurizing a space on the opposite side relative to the polyimide film." Furthermore, said autoclave is understood to read on the claimed "pressing die." Specifically, it meets applicant's requirements of the pressing die in that it covers the open end of the molding die

(paragraph 22). Said autoclave also meets Webster's Dictionary's definition of a die –“a device for imparting a desired shape, form, or finish to a material or for impressing and object of material.” The examiner also takes the position that the teaching of allowing the temperature to “fall at a predetermined rate” reads on applicant's claimed “cooling portion” of claim 4. The teaching of removing the shaped sheet by “any suitable way” is understood to read on the claimed “take out mechanism” of claims 11 and 12.

With respect to claims 5 and 6, the limitations “for use in illumination equipments” is understood to be an intended use limitation. The examiner takes the position that the recited intended use DOES NOT result in a structural difference between the claimed invention and the prior art because the recited intended use in no way limits the structure that the claimed polyimide film may have. Thus, the film taught by Anthony is capable of performing the intended use as recited in the preamble.

Anthony teaches that the die may have any convenient configuration (col 3, lines 3+). The deformations of the die may vary in shape and depth (col 4, lines 14+). However, Sado teaches that it is desirable to shape polyimide sheets to give said sheet convexity or concavity (col 1, lines 13+) in order to form cups or containers (col 1, lines 30+). Therefore, it would have been obvious to utilize a convex or concave die in order to obtain a polyimide sheet that may be used as a cup or container.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 703-305-

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0025. The examiner can normally be reached on Monday-Friday from 7:00a.m. to 4:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is 703-305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

K-RK

krk

Paul Thibodeau
Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700